

Linear Systems – Review

Solve the systems below by the method of substitution or elimination. Solve these problems algebraically and then verify graphically or with matrices. For systems that do not have a single solution, label them *inconsistent* or *dependent*. I expect to see your work.

$$\begin{array}{l} 1) \quad x - y = 0 \\ \quad \quad 5x - 3y = 0 \end{array}$$

$$\begin{array}{l} 2) \quad x + 2y = 1 \\ \quad \quad 5x - 4y = -23 \end{array}$$

$$\begin{array}{l} 3) \quad 2x - y = -2 \\ \quad \quad 4x + y = 5 \end{array}$$

$$\begin{array}{l} 4) \quad 6x - 3y - 4 = 0 \\ \quad \quad x + 2y - 4 = 0 \end{array}$$

$$\begin{array}{l} 5) \quad 2x + y = 5 \\ \quad \quad x - y = 1 \end{array}$$

$$\begin{array}{l} 6) \quad x + 3y = 1 \\ \quad \quad -x + 2y = 4 \end{array}$$

$$\begin{array}{l} 7) \quad x + y = 0 \\ \quad \quad 3x + 2y = 1 \end{array}$$

$$\begin{array}{l} 8) \quad 2x - y = 3 \\ \quad \quad 4x + 3y = 21 \end{array}$$

$$\begin{array}{l} 9) \quad x - y = 2 \\ \quad \quad -2x + 2y = 5 \end{array}$$

$$\begin{array}{l} 10) \quad 3x - 2y = 5 \\ \quad \quad -6x + 4y = -10 \end{array}$$

$$\begin{array}{l} 11) \quad 3x - 2y = 5 \\ \quad \quad x + 2y = 7 \end{array}$$

$$\begin{array}{l} 12) \quad x + 7y = 12 \\ \quad \quad 3x - 5y = 10 \end{array}$$